

SECTION 13B: Cidex - 2% Gluteraldehyde

I. PURPOSE. To establish a standard guide for effective use and management of Cidex

II. APPLICABILITY. All DeWitt Army Community Hospital staff that work with Cidex.

III. GENERAL INFORMATION.

A. Glutaraldehyde (Cidex) is commonly used throughout the health care industry for **high-level disinfection** of a wide variety of medical devices such as endoscopes, respiratory therapy and pulmonary equipment, transducers, anesthesia equipment, and other types of heat sensitive equipment in clinics and doctors offices. In the DHCS, a 20 minute soak in glutaraldehyde is the minimum acceptable standard for processing endoscopy equipment. The use of STERIS is recommended and all areas will be implementing STERIS as upgrades are available. Vaginal and rectal ultrasound probes are processed in Cidex between each patient. A barrier latex condom is also used.

B. Health care workers can become exposed to elevated levels of glutaraldehyde vapors when equipment is processed in poorly ventilated rooms, when spills occur, or when immersion baths are constantly left open or uncovered. Industrial Hygiene will conduct quarterly ventilation monitoring of all areas where Cidex is being used as required by Occupational Safety and Health Administration requirements.

IV. DEPARTMENT / SERVICE / CLINIC QUALITY ASSURANCE PROGRAM

A. All clinical activities will implement policies which will include:

1. Each user will maintain an effective quality assurance program with special emphasis on cleaning and disinfection.

2. Policies and procedures will adopt clearly written detailed cleaning and disinfection protocols. They should include structures and processes which:

a. Emphasize the manual soaking and cleaning as the first and most important step in removing organic and microbial bioburden.

b. Permit only those individuals who have demonstrated the ability to perform appropriate and proper cleaning and disinfection. Temporary personnel should not be allowed to manually clean or disinfect instruments using a manual or automated processor without documented training.

c. Each clinical area using glutaraldehyde will develop and maintain a continuing education program devoted toward infection control which involves all staff members.

B. Engineering and work practice control shall be used to eliminate or minimize employee exposure. Where occupational exposure remains after institution of control

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measures, personal protective equipment will be used. OSHA requirements for health care worker safety include the following precautions:

V. PROCEDURES. The high level disinfection process requires adherence to specific steps to assure its efficacy. Personnel will follow manufactures recommendations when cleaning and disinfecting equipment. A Gluteraldehyde User Station (G.U.S.) is provided for areas where Cidex is in use. The equipment is activated 24/7. The filter is changed every 6 months.

A. Personal Protection Equipment (PPE).

- Gloves. Wear nitrile gloves when working with Cidex
- Eyewear. Wear fluidshield masks and or protective eyewear during disinfection process to help protect your eyes from potential splashing. Eye washes are located within 100 feet of all glutaraldehyde activities. Use care to avoid splashing the glutaraldehyde when handling.
- Gowns / Aprons. Wear a fluid-proof gown and or apron to protect clothing and skin from splashes when engaged in cleaning and disinfecting instruments.

B. Glutaraldehyde Activation. To be effective during use, the Cidex solution must be activated.

- Activate the solution by adding the contents of the activator vial to the container of Cidex solution.
- Upon mixing, the glutaraldehyde will change color to indicate that it has been activated and is ready for use.
- Immediately record the date the solution was activated and when the solution will expire on the manufacturer's label found on the bottle and in the unit log
- The log is required to be maintained for quality assurance purposes. It must be maintained by all clinical areas using glutaraldehyde.
- Never reuse glutaraldehyde after the manufacturer's suggested reuse date. Logs may be ordered from the vendor or copied.

C. Cidex Test Strips. Glutaraldehyde solution may expire prior to reuse expiration date stated. To determine if an effective concentration of glutaraldehyde is still present, Cidex Test Strips will be used IAW manufacturer's recommendations to determine the efficacy of the solution.

- Test the solution prior to each use and record the results in the log book.
- If the solution is found to be unacceptable, the Cidex will be discarded IAW instructions found in the **Disposal** section below.

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- Prepare a new solution and label accordingly with the expiration date.

D. Disinfection Process

- Place the probe carefully into the container.
- Do not “bump” the tip of the probe on the bottom of the container.
- Secure the probe with the clip on the G.U.S.
- Allow to soak for 20 minutes.
- Remove the probe and insert into the second container – water. Immerse and rinse. Remove and rinse again under running water.
- Dry and replace in the designated storage area.
- Remove PPE and wash hands.

E. Limiting Exposure to Glutaraldehyde Vapors. Glutaraldehyde vapors are irritating. To prevent excessive exposure to vapors, take the following precautions:

- Always use in a well ventilated area.
- Always replace the lids on the containers when not in use.
- Be careful to avoid splashing or spills. Call Safety Officer immediately for any large spills. MSDS Sheets will be available in all areas where glutaraldehyde is being used.
- All areas will coordinate and establish on going monitoring of adopted threshold limit values of ambient air concentrations of glutaraldehyde in the work environment with the Industrial Hygiene Section. Current level is not to exceed >0.100ppm.

F. Disposal.

- **Inactivate** by adding a single use package of neutralizer powder to the container to be discarded.
- Wait five minutes, then pour the liquid into the sanitary sewer.
- In compliance with EPA regulations, empty containers of glutaraldehyde may be discarded in the regular trash after thoroughly rinsing with water.

VI. REFERENCES.

- a. 29 Code of Federal Regulations 1910, Occupational Safety and Health Standards.
- b. American National Standard, ANSI/AAMI ST58-1996, Safe Use and Handling of Glutaraldehyde-based Products in Health Care Facilities.
- c. American National Standard, ANSI Z358.1-1998, Eyewash Stations and Showers.
- d. MEDDAC Regulation 385-1, Safety Program.
- e. MEDDAC Regulation 385-2, Hazard Communication.
- f. APIC Guideline for infection prevention and control in flexible endoscopy, April 2000.
- g. MEDDAC Regulation 40-134, Management of Glutaraldehyde, February 2001.
- h. APIC Infection Control and Applied Epidemiology Principles and Practices. Mosby, St. Louis, June 2000.
- i. APIC Guideline for selection and use of disinfectants, 1996.
- j. Disinfection, Sterilization and Antisepsis in Health Care, edited by William Rutala, Ph.D., MPH, 1997.